

Amendment to the specification:

Amend the paragraph in lines 1-8 on page 17 of the specification as indicated:

Thus, during lean operation where NO_x is occluded, the catalyst outlet [NO_x] is ~~detected~~ ~~captured~~ from the NO_x sensor provided downstream of the catalyst and the ~~captured~~ actually measured value according to the equation (1) and the estimated value according to the equation (2) are compared with each other, then an accurate NO_x occlusion amount can be obtained by correcting the coefficient k_i by the method of least square for each comparison.